

ABSTRACT

5 Process and apparatus for the preparation of synthesis gas
by catalytic steam and/or CO₂ reforming of a hydrocarbon
feedstock comprising the following steps:

10 (a) heating the reaction mixture of hydrocarbon and
steam and/or CO₂ in a heated steam reforming unit in-
tegrated with the flue gas containing waste heat sec-
tion from the fired tubular reformer in which reform-
ing of the reaction mixture takes place by contact
with a solid reforming catalyst

15 (b) feeding the partially steam reformed mixture to
the fired tubular reformer and further reforming the
mixture to the desired composition and temperature,
wherein the heated steam reforming unit comprises a
piping system containing reaction sections with solid
reforming catalyst comprising catalyst pellets and/or
20 catalysed structured elements, the piping system being
part of the process gas piping system integrated with
the flue gas-containing waste heat section.